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Figure 1A

1 agagagcagctcccttccccctggcgaggaggaaggaagaaagccagagagagagag
61 agagatcatcgagcttctctccctccgaccatttgactggcgactgtgattacaacacacccgt
121 tgatccctacgaaaaagagggttaattgatactggcggaatttcgctggcgctccggacctgat
M D T G G N S L A S G P D 13
181 ggtgtgaagaggaaagtttggctatttctatgacctgaggtcggaacttactactatggc
G V K R K V C Y F Y D P E V G N Y Y Y G 33
241 caagggtcatcccatgaagccccatcgcatccgcatgacctatgcccctccctcgctcactac
Q G H P M K P H R I R M T H A L L A H Y 53
301 ggtctccttcagcatatgcagggttctcaagccccctccctcgcccggaacctgtgatctctgc
G L L Q H M Q V L K P F P A R E R D L C 73
361 cgcttccacgcgcgacgactatgtctcttttctccgcagcattacccccgaaacccagcaa
R F H A D D Y V S F L R S I T P E T Q Q 93
421 gatcagattcgccaacttaagcgcttcaatgttggtgaagactgtcccgctcttttgacggc
D Q I R Q L K R F N V G E D C P V F D G 113
481 ctttattcttttgcagacctatgtcggaggatctgttggtggctctgtcaagcttaac
L Y S F C Q T Y A G G S V G G S V K L N 133
541 caaggcctctgcgatattggccatcaactgggctgggtgggtctccatcacgctaagaagtgc
H G L C D I A I N W A G G L H H A K K C 153
601 gaggcctctggtctctgttaccgtcaatgatctcgtttagctatccttagagctccttaag
E A S G F C Y V N D I V L A I L E L K 173
661 cagcactgagcgtgttctttatgtcgatatttgatattccaccacggggatggagtgaggag
Q H E R V L Y V D I D I H H G D G V E E 193
721 gcattttatgtctactgacaggggttatgactgtctcgttttcataaatttggtgattacttt
A F Y A T D R V M T V S F H K F G D Y F 213
781 cccggtacaggtcacattcaggatatagggttatggtagcggaaagtactattctctcaat
P G T G H I Q D I G Y G S G K Y Y S L N 233
841 gtaccactggatgatggaatcgatgatgagactatcattctgttattcaagccccatcag
V P L D D D G I D D E S Y H L L F K P I M 253
901 gggaaagtattggaaattttccgaccaggggctgtggtattgcaatgtggtgctgactcc
G K V M E I F R P G A V V L Q C G A D S 273
961 ctatctggggatcggttaggttgcttcaatctttcaatcaaaggctcatgctgagtgcgctc
L S G D R L G C F N L S I K G H A E C V 293
1021 aaattttatgagatcggttcaatgttccccctactgctcttgggtgggtgggtttacactatc
K F M R S F N V P L L L G G G G Y T I 313
1081 ccgaatgttgcctccttggctggtgctacgagactggaggttgcaacttgaggttgaa
R N V A R C W C Y E T G V A L G V E V E 333
1141 gacaagatgccggagcatgaatattatgaatactttggtccagactatacacttccaggtt
D K M P E H E Y Y E Y F G P D Y T L H V 353
1201 gctccaagtaacatggaaaaataagaattctcgtcagatgcttgaagagatttcgcaatgac
A P S N M E N K N S R Q M L E E I R N D 373
1261 cttctccacaatctcttaagcttcagcactgctccaagtgtaccatttcaggaaagacca
L L H N L S K L Q H A P S V P F Q E R P 393
1321 cctgatacagagactccccgaggttgatgaagaccaagaagatggggataaaagatgggat
P D T E T P E V D E D Q E D G D K R W D 413
1381 cccgatttcagacatggatgttgatgatgacctaaacctataccaagcagagtaaaaaaga
P D S D M D V D D D R K P I P S R V K R 433
1441 gaagctggttgaaaccagatacaaaaggacaaggatggactgaaagggaatttatggagcgtgga
E A V E P D T K D K D G L K G I M E R G 453
1501 aaagggttgtaggttgaggttgatgagagtggaaagcactaaaggttacaggagtaaaccca
K G C E V E V D E S G S T K V T G V N P 473
1561 gtgggagtgagggaagcaagtgtgaaaatggaagagggaaggaacaaacagggtggggcg
V G V E E A S V K M E E E G T N K G G A 493
1621 gaggcggcgttccctctaaaacataagactcggagcctcctaatttctgtgctactttttc
E Q A F P K T * 502
1681 tgtctatcaaatgttggtagttaaagtctctggagtggtgtgttggtgaagcactcctctg
1741 ctttagaggattgagcaccggataggtatttactcgttgcaatgtctgaatgatgatgat
1801 atgacaa



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Figure 1B

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121 atggaggcagacgaaagcggcatctctctcgcgtcgggacccgacggacgtaagcggcga
M E A D E S G I S L P S G P D G R K R R 20
181 gtcagttactttctacgagccgacgacgagactactactacgggtcaaggccaccgcatg
V S Y F Y E P T I G D Y Y Y G Q G H P M 40
241 aagcctcaccggatccgtatgggtccatagccataatcattcactatcacctccaccgtcgc
K P H R I R M A H S L I I H Y H L H R R 60
301 ttagaaatcagtcgcccctagcctcgcgtgacgcctccgatatcgggcggattccattcgcgc
L E I S R P S L A D A S D I G R F H S P 80
361 gagtatgttgacttctcgtcttcggttttcgcgggaatctatggggcgatccttccgctgca
E Y V D F L A S V S P E S M G D P S A A 100
421 cgaaacctaaaggcgattcaatgtcggtgaggattgtcctgtcttcgacggactttttgat
R N L R R F N V G E D C P V F D G L F D 120
481 ttttgcggtgcttccgcgggaggttctattgggtgctgcggtcaaattaaacagacaggac
F C R A S A G G S I G A A V K L N R Q D 140
541 gctgatatcgctatcaattggggcggtggggttcaccatgctaagaaaagcggaggttct
A D I A I N W G G L H H A K K S E A S 160
601 ggggttttgcctatgtaaacgacatcgctgctagggtattctggagttgctcaagatgtttaag
G F C Y V N D I V L G I L E L L K M F K 180
661 cgggttctctacatagatattgatgtccaccatggagatggagtggaagaagcgttttac
R V L Y I D I D V H H G D G V E E A F Y 200
721 accactgatagagttatgactgtttctttccacaaatttggggactttttccagggaact
T T D R V M T V S F H K F G D F F P G T 220
781 ggtcacataagagatgttggcgctgaaaaagggaataactatgctctaaatgttccacta
G H I R D V G A E K G K Y Y A L N V P L 240
841 aacgatgggtatggacgatgaaagtttccgcagcttgttttagacctttatccagaaggtt
N D G M D D E S F R S L F R P L I Q K V 260
901 atggaagtgtatcagccagaggcagttgttcttcagtggtggtgctgactccttaagtgtt
M E V Y Q P E A V V L Q C G A D S L S G 280
961 gatcgggttgggttgcctcaacttatcagtcgaagggtcacgctgattgccttcgggttctta
D R L G C F N L S V K G H A D C L R F L 300
1021 agatctttacaacgttctctcatggtgttgggtggtgaagggtatactattcgaaaatgtt
R S Y N V P L M V L G G E G Y T I R N V 320
1081 gcccgttgcgtggtgttatgagactgcagttgctgttggagtagagccggacaacaaactc
A R C W C Y E T A V A V G V E P D N K L 340
1021 ccttacaatgagatattttgagtatcttcggcccagattatacgttctcatgtcgacccaagt
P Y N E Y F E Y F G P D Y T L H V D P S 360
1201 cctatggagaattttaaacacgcccacaaagatatggagaggataaggaacacggttgcgtgga
P M E N L N T P K D M E R I R N T L L E 380
1261 caactttcgggactaatacacgcaccttagcgtccagtttcagcacacaccaccagtcatt
Q L S G L I H A P S V Q F Q H T P P V N 400
1321 cgagtttttgacgagccggaagatgacatggagacaagacccaaaacctcgcattctggagt
R V L D E P E D D M E T R P K P R I W S 420
1381 ggaactgcgacttatgaatcagacagtgacgatgatgataaacctcttcatggttactca
G T A T Y E S D S D D D D K P L H G Y S 440
1441 tgcgtggttggcgcaactacggacagggactctaccggtgaagatgaaatggatgacgat
C R G G A T T D R D S T G E D E M D D D 460
1501 aacccagagccagacgtgaatcctccatcgctttaaacagcgttgatgggttgggtgtctc
N P E P D V N P P S S * 471
1561 ttttgcctatgatnaatgtcggcagatttaagaaacaagttaggggautgaatgattctc
1621 tgatgttttttcagcaaccttttgagttctgtgaaaacgctgcattgattagaacagtgga
1681 caactgaactagttattttggcccgaagttagaataatcagaatatgtgaaaaaaaaaaaaa
1741 aaaaaaaaggcgccgctcttagaggatccaggttacgtacgggtgcattgcgcgctcat



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Figure 2A

1 caccggctccgtaaaaaatcctctctctctctctcaacccctgattcttttagccatggaggttctgg
M E F W 4
61 ggaattgaagttaaatcaggaaagccagttacagtgaactcctgaagaaggcattcttctatc
G I E V K S G K P V T V T P E E G I L I 24
121 caccgtttctcaggccatcgcttggagaatgtaaaaacaagaaggagagtttgtgccttta
H V S Q A S L G E C K N K K G E F V P L 44
181 catgtaaagggttgggaaccagaacttgggttctgggaactctatcgactgagaacatccct
H V K V G N Q N L V L G T L S T E N I P 64
241 cagcttttctgtgatttgggtatctcgacaaggagtttgagctttctcacttggggaaaa
Q L F C D L V F D K E F E L S H T W G K 84
301 ggaagtgtttactttgttggatacaaaaactcccaacattgagccacaaggctattcttgag
G S V Y F V G Y K T P N I E P Q G Y S E 104
361 gaagaagaggaagaagaggaagaagttcctgctgggaatgctgccaaggctgtagctaaa
E E E E E E E E V P A G N A A K A V A K 124
421 ccaaaggctaaagcctgcagaagtgaagccagctgttgatgatgaagaggatgagttctgat
P K A K P A E V K P A V D D E E D E S D 144
481 tctgacggaatggatgaagatgattctgtatgggtgaggattctgaggaagaagagcctaca
S D G M D E D D S D G E D S E E E E P T 164
541 cctaagaagcctgcatcaagcaagaagagagctaataaactacccctaaagcacctgtg
P K K P A S S K K R A N E T T P K A P V 184
601 tcagcaaagaaggcgaaagtagcagttactcctcagaaaacagatgagaagaagaaggag
S A K K A K V A V T P Q K T D E K K K G 204
661 ggaaaggctgcaaaccagagcccaaaagtcggccagtcagttctcatgttggttcatgcaag
G K A A N Q S P K S A S Q V S C G S C K 224
721 aagactttcaactcagggaatgcacttgagtctcacaacaaggccaagcacgctgctgcc
K T F N S G N A L E S H N K A K H A A A 244
781 aagtgaagtgggttcttattagagcctgtgatttctatggaattttgcctgtagtcttta
K * 245
841 tgaaaccttcggattttcttatattttcttttgataacaagagttcttaatgaaagagagc
cagttggagttcttaaaaaaaaaaaaaaaaaaaggcgccgc

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Figure 2B

1	gtcttttcgcttctataaaaaaaacctaacaacctctctctctctctctcctcggtccaacaaca	
61	atggagatttgctggggagtgtgcggtgacaccaaaaaaacgctactaagggtgactcctgaagaa	
	M E F W G V A V T P K N A T K V T P E E	20
121	gacagccttggtccacattttctcaggcttcaacttgactgcacagtgaaaatctgggagaatct	
	D S L V H I S Q A S L D C T V K S G E S	40
181	gtgggttttgagtgtgactgttggtggggctaaaccttggttatitggaacactttccacaagac	
	V V L S V T V G G A K L V I G T L S Q D	60
241	aagttccctcagatttagctttgatgttggtttttgataaagagtttgagctttcacacagc	
	K F P Q I S F D L V F D K E F E L S H S	80
301	ggtaccaaaagcaaattgttcatttcattgggtacaaaatcccccaacatcgagcaggatgac	
	G T K A N V H F I G Y K S P N I E Q D D	100
361	ttcactagtttcggatgatgaggatgttccctgaagctgttccctgctcctgccctactgct	
	F T S S D D E D V P E A V P A P A P T A	120
421	gttactgccaaacggaaatgctggagcagctgttgtcaaggctgacacaaaagccaaaggcc	
	V T A N G N A G A A V V K A D T K P K A	140
481	aaacctgccgaagtgaagcctgcagaagagagaagcctgaatcagacagggaagatgagttct	
	K P A E V K P A E E K P E S D E E D E S	160
541	gatgatgaagatgagttctgaagaggatgatgactcttgagaaaggaatggatgttgatgaa	
	D D E D E S E E D D D S E K G M D V D E	180
601	gatgactcagatgatgacgaggaggaggattcttgaggatgaagaagaggaggagactcct	
	D D S D D D E E E D S E D E E E E E T P	200
661	aagaagcctgagccaatcaacaagaagagggccaaatgaatctgtatccaaaacaccccgtc	
	K K P E P I N K K R P N E S V S K T P V	220
721	tctggaaagaaggcaaaaccagcagcagcaccagcttctactcctcagaagacagagaag	
	S G K K A K P A A A P A S T P Q K T E K	240
781	aagaaaggaggacacaccgccacaccacacccagctaagaagggtggaaagtctcctgtg	
	K K G G H T A T P H P A K K G G K S P V	260
841	aatgctaaccagagccccaagtctggaggtcaatcatccgggtggtaacaacaacaagaag	
	N A N Q S P K S G G Q S S G G N N N K K	280
901	ccattcaactcaggcaaacattttggtggttccaacaacaagggttcttaacaaggggcaag	
	P F N S G K Q F G G S N N K G S N K G K	300
961	ggaaagggttagagcttaaggacgtggatcaaggagagggttttgggttttcogagtagatga	
	G K G R A *	305
1021	tgaanaacatttggaaagtgtggtttttggatttttatcttatntttatttagtataacttggtta	
1081	tccgatgagctatttttgagtatttgcatttctactttcctatgtaatttcagttatatgaa	
1141	tatttgcagaaatgagaaagaagactcgaattgcaacaaaaaaaaaaaaaaaaaaaaaaaaa	
1201	aaggggcggccgc	



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Figure 3

ATRPD3A	MD---	GG	NSLASVGP	DKRVCYFYD	BEVGNYYYGO	GHPMKPHRIR	45
ATRPD3B	MEADESGI-		SLPS-GPDG	SKR-VYFYE	PT-GDYVYGO	GHPMKPHRIR	47
CMRPD3	MDSCNAGEGG		NSLPSVGP	DKRVCYFYD	PDVGNYYYGO	GHPMKPHRIR	50
RPD3	MYVEATRPD-		---PITVXPS	DKR-VAYFYD	ADVGNVAYGA	GHPMKPHRIR	46
ATRPD3A	MTHALLAHYG	LLHMOVLP	FPARERELCR	FHADYYEFL	RSITPETOOD		95
ATRPD3B	MAHSLIHYE	LHRLLEISRP	CLADASDIER	FHSPEYDFL	ASVUPESMGD		97
CMRPD3	MTHSLLARYG	LLNMOVYRP	FPARERELCR	FHAHEYINEL	RSVTPETOOD		100
RPD3	MAHSLIMNYG	LYFKMEIYRA	FPATKEMC	FHTDEYIDFL	SPVTPDNLEM		96
ATRPD3A	OI--RQLKRE	NVGEDCPVFD	GLYSEFCOTYA	GGSVGGGVKL	NHGLCDIAIN		143
ATRPD3B	PSAARNLRRF	NVGEDCPVFD	GLPFCFASAA	GGSIGRAVKL	NRQDADIAIN		147
CMRPD3	OI--RLKRE	NVGEECPVLD	GLYSEFCOTYA	GASVGGAVKF	NHGH-DIAIN		148
RPD3	--FKRESVVF	NVGDCPVFD	GLYEYCSISG	GGSMESAAAL	NKCKCDVAVN		144
ATRPD3A	WAGGLHHAKK	CEASGFCYVN	DIVLAILLEL	KHERVLYVD	IDIHHDGDVE		193
ATRPD3B	WGGGLHHAKK	SEASGFCYVN	DIVLGILELL	KMFHVRVLYD	IDVHHGDGVE		197
CMRPD3	WEGGLHHAKK	CEASGFCYVN	DIVLAILLEL	KHHHVRVLYD	IDIHHDGDVE		198
RPD3	VAGGLHHAKK	SEASGFCYUN	DIVLGI-ELL	RYHFRVLYID	IDVHHGDGVE		194
ATRPD3A	EAFYATDRVM	TVSFHKFGDY	FPGTGHI-DI	GNGSGKYYSL	NVPLDDGIDD		243
ATRPD3B	EAFYTTDRVM	TVSFHKFGDE	FPGTGHIRDY	GAEKGKYAAL	NVPLNDGMDP		247
CMRPD3	EAFYTTDRVM	TVSFHKFGDY	FPGTGDIRDI	GHSKGKYYSL	NVPLDDGIDD		248
RPD3	EAFYTTDRVM	TSFHKYGEF	FPGTGELRDI	GNGAGKNYAV	NVPLFDGIDD		244
ATRPD3A	ESYHLLEFKPI	MKGVMELFRP	GAUVLOCGAD	SLSGDRLGCF	NLSIKGHAEC		293
ATRPD3B	ESYRSLEFRL	IKKVMEMYOP	GAUVLOCGAD	SLSGDRLGCF	NLSVKGHADC		297
CMRPD3	ESYSLLEKPI	MKGVMEEVERP	GAUVLOCGAD	SLSGDRLGCF	NLSIKGHAEC		298
RPD3	ATYRSVEEPV	IKKIMEWYOP	SAUVLOCGAD	SLSGDRLGCF	NLSMEGHANC		294
ATRPD3A	VKFMRSFNVP	LLLLGGGGYT	IRNVARCWCY	ETGVALGVEV	EDKMPHEHEY		343
ATRPD3B	VRFLRSFNVP	LMVLGGGCGT	IRNVARCWCY	ETAVANGVEP	DNKLPYNEYF		347
CMRPD3	VRFYMRSFNVP	LLLLGGGGYT	IRNVARCWCY	ETGVALG-EP	EDKMPVNEY		348
RPD3	VNYVKSFGIF	MMVVGCGGYT	MRNVARTWCF	ETGLLNNVVL	DEDLPYNEY		344
ATRPD3A	EYFGPDYTLH	VAPSNMENKN	SRQMLEEIRN	LLLNLSKLO	HAPSVPFQER		393
ATRPD3B	EYFGPDYTLH	VPSPNMENKN	TPKQMERIRN	TLLHNLSELI	HAPSVQFOHT		397
CMRPD3	EYFGPDYTLH	VAPSNMENKN	TRQCLEEIRS	---KLSKLR	HAPSVHFOER		394
RPD3	EYVSPDYFLS	VRPSNMENKN	TPETLDKMT	NIFANLENTK	YAPSVOLNHT		394
ATRPD3A	PPDTETPEVD	EDCEDGDFRW	DPDSMDVDVD	D-----P	KPIPSPVKRE		435
ATRPD3B	PPYNRVLD--		EPEDDME---	-----TR	KP---RIWSG		431
CMRPD3	PPDTEIPEVD	EDQDIDDERH	DPDSMDMEVDD	HFAVEESRRP	SILGIRIKRE		444
RPD3	P-----	-----R-	DAEDLGDOVEE	DSA-----			438
ATRPD3A	AVEPDTEFDD	GLKQIMEPCY	GCEVEVDDEG	STKNT---GV	NPVGVVEEAS-		481
ATRPD3B	TATYESDSDD	QCKPL--HGY	SC-----	--RGGATTDR	DSTGEDEMDD		489
CMRPD3	EGENATEFVD	GGRVAGEH-R	GLEPMAEDIG	SFKJAPQADA	GAMAIDEPSN		493
RPD3	-----	-----	-----	-----	-----EAFK		410
ATRPD3A	VKMEBECTNK	GGAEKAPPPF	T				500
ATRPD3B	DNPEPDVNP-	-----PSS					491
CMRPD3	VKMEBESSTK	LIGCAAAHKK	P				514
RPD3	TNGGCVYARD	LHTBBDNEFY					488



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FIGURE 5

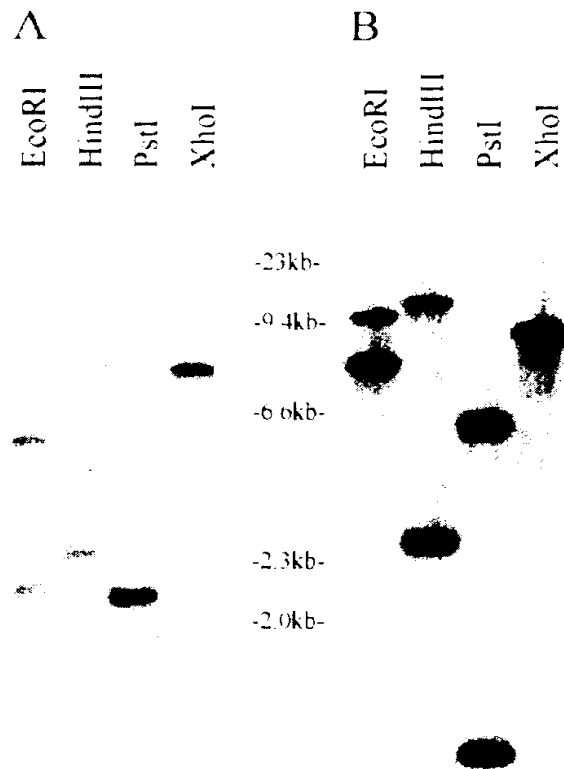
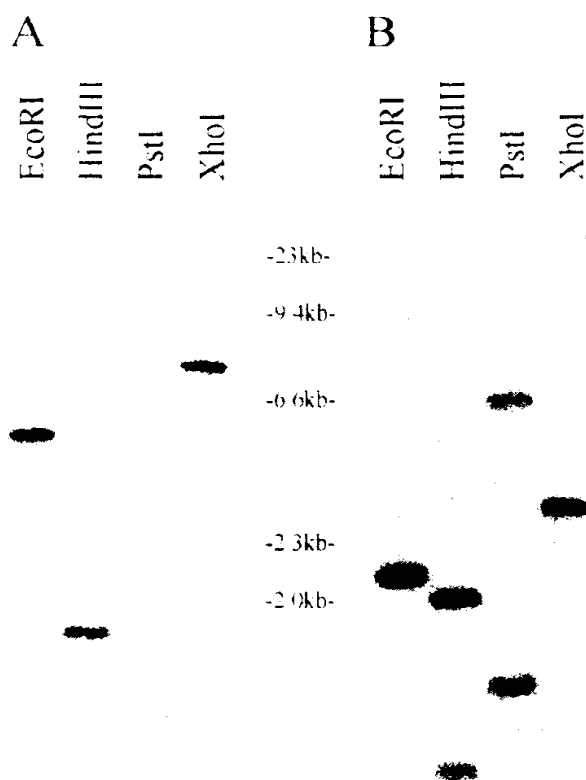


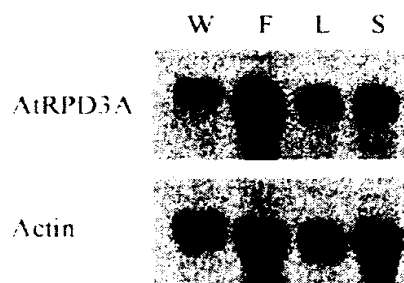
FIGURE 6





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FIGURE 7





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FIGURE 8

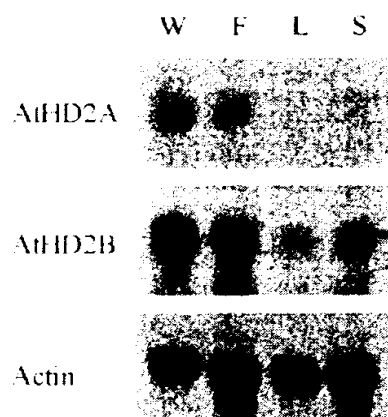
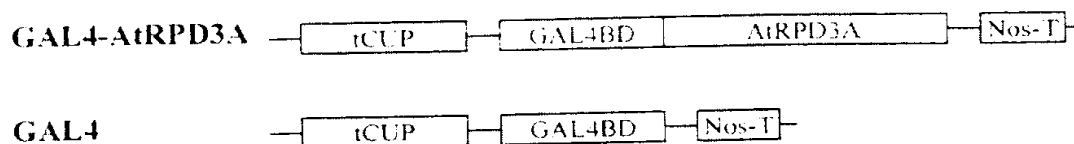


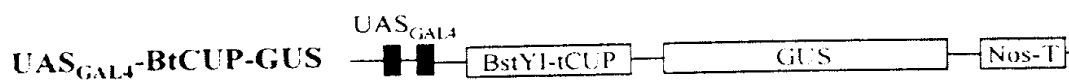
FIGURE 9

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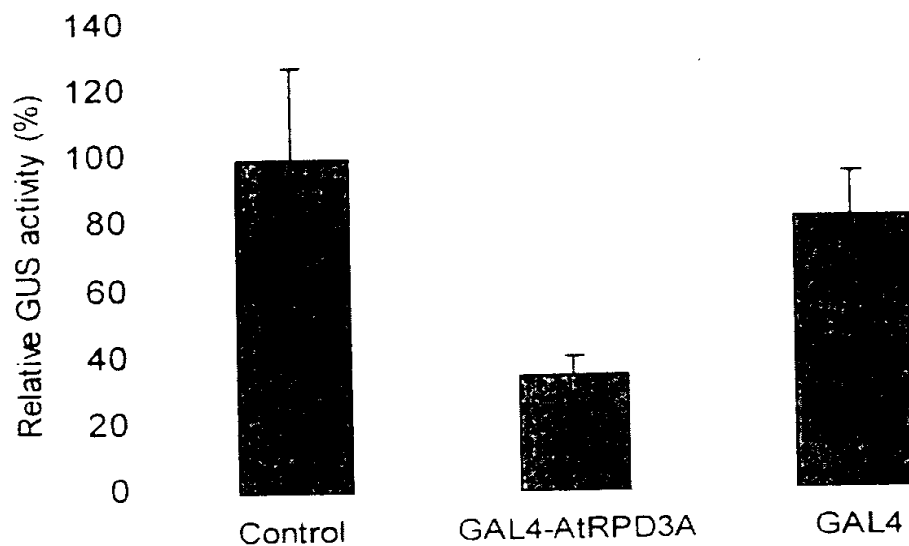
Effector Plasmids



Reporter Plasmid



B



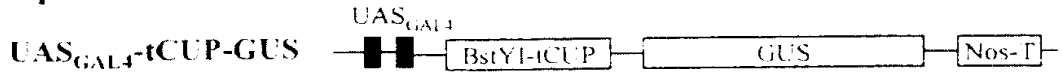


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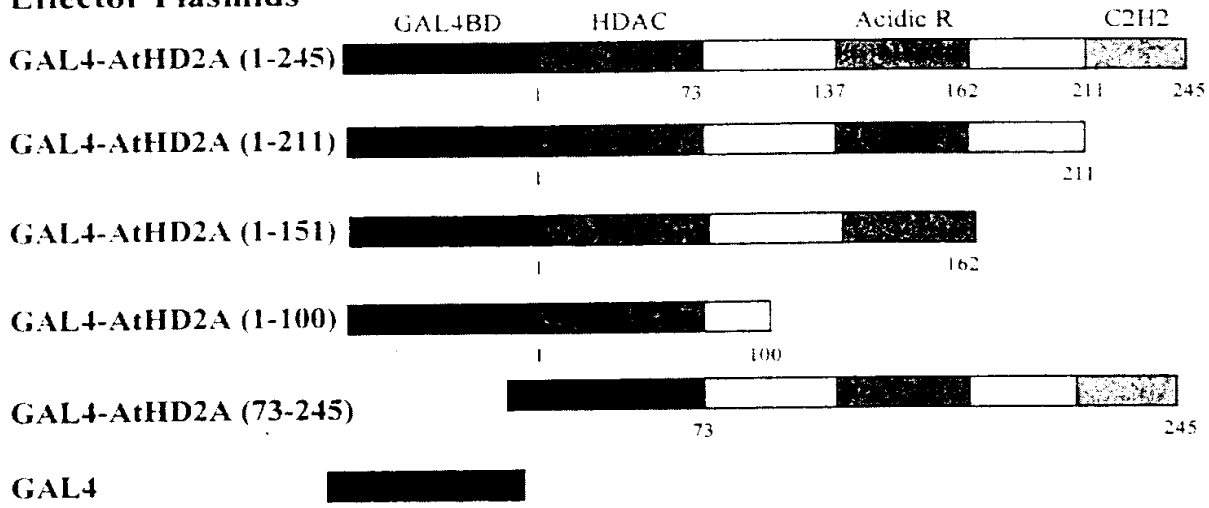
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FIGURE 10

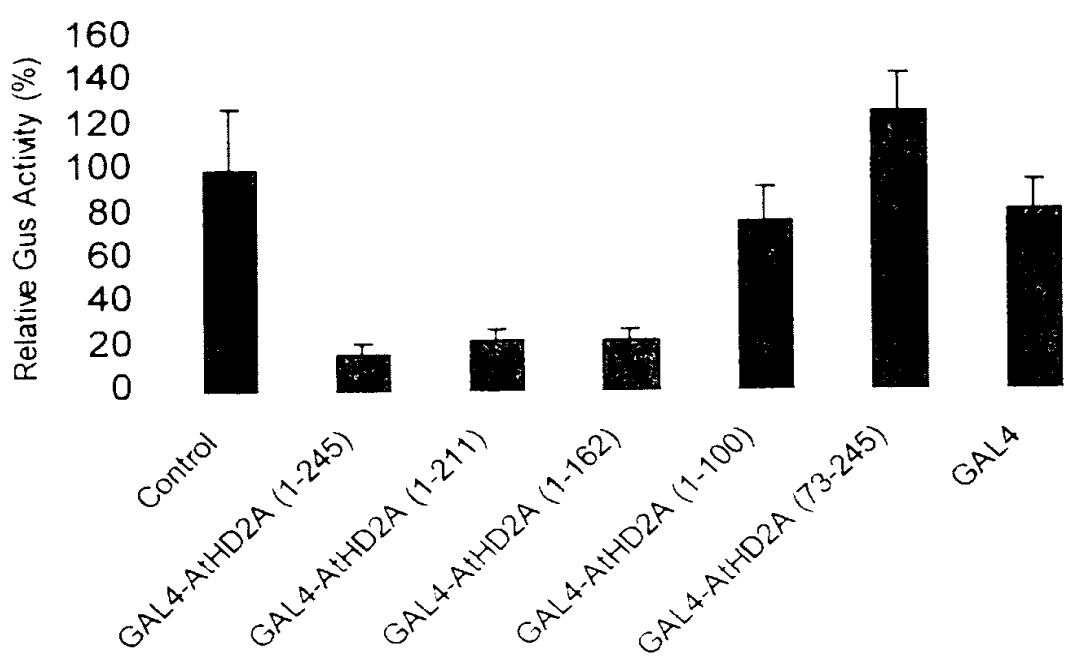
Reporter Plasmid



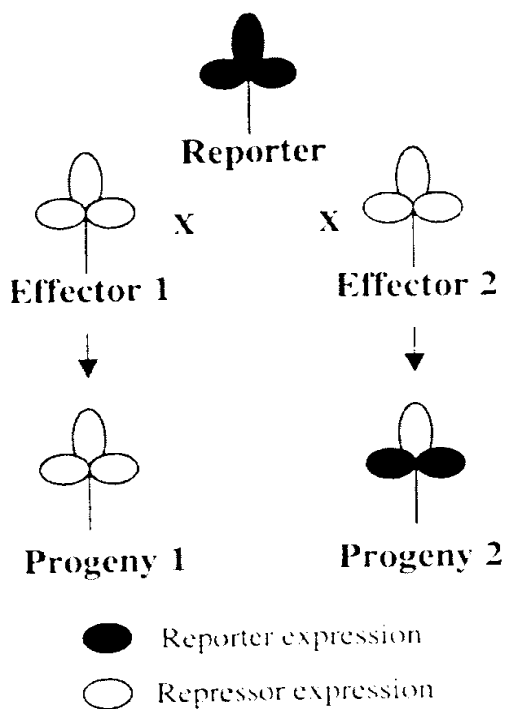
Effector Plasmids



B



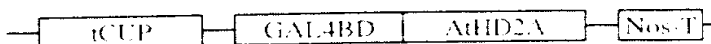
A



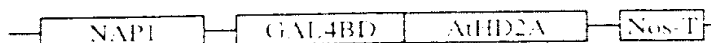
B

Effector Plasmids

iCUP-GAL4/AtHD2A (Effector 1)



NAP1-GAL4/AtHD2A (Effector 2)



Reporter Plasmid

UAS_{GAL4}-iCUP-GUS (or UAS_{GAL4}-35S-GUS)



Figure 17

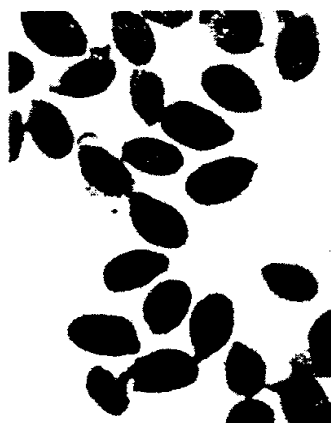


RECEIVED

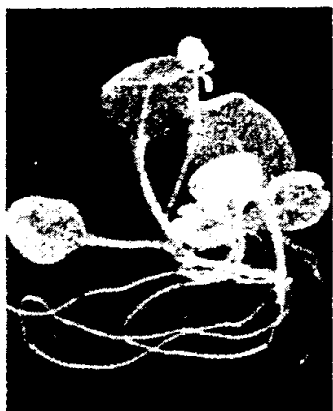
SEP 12 2002

TECH CENTER 1600-2900

A



B



C



Figure 18

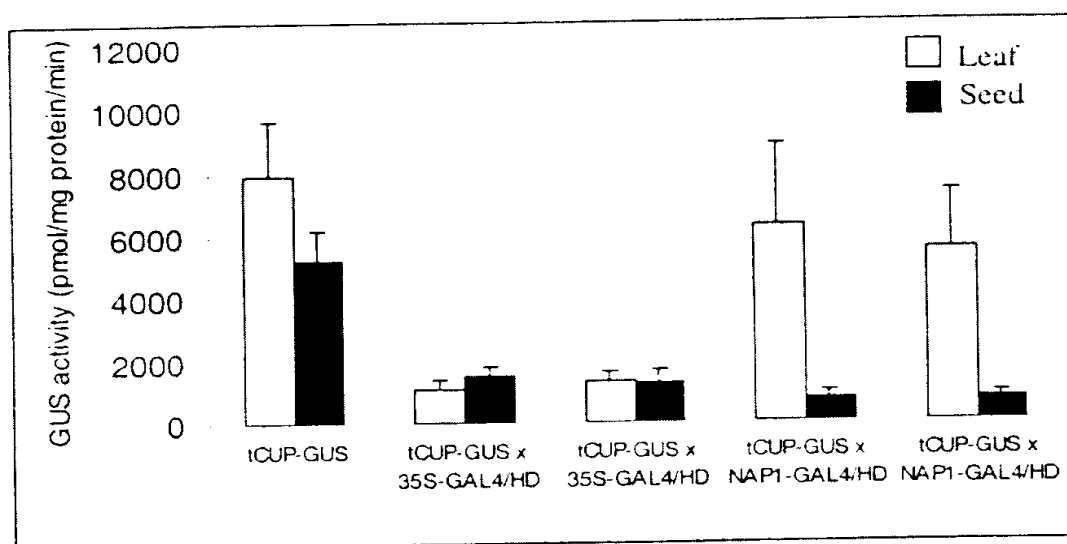


Figure 19(a)



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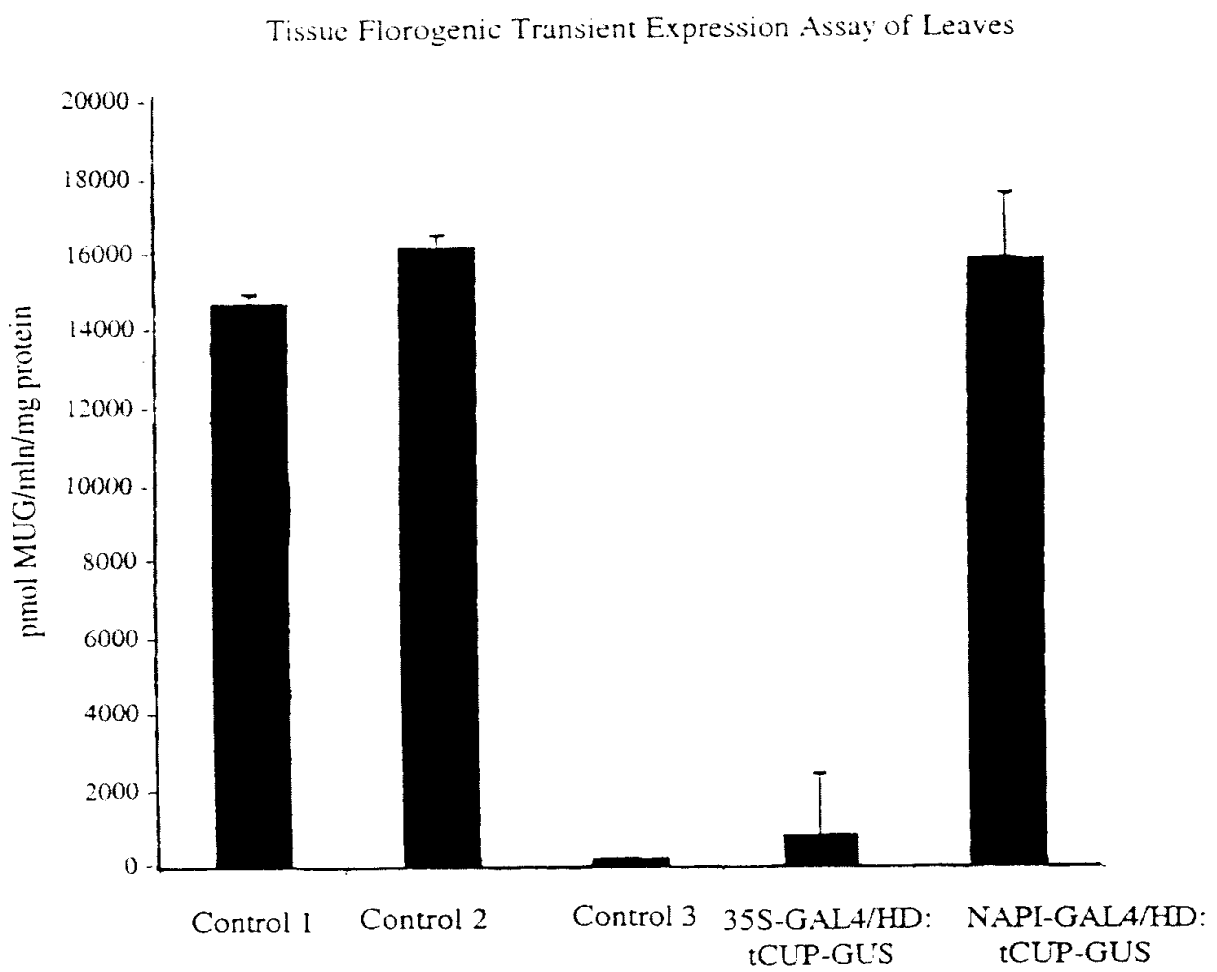


Figure 19(b)



Tissue Florogenic Transient Expression Assay of Seeds

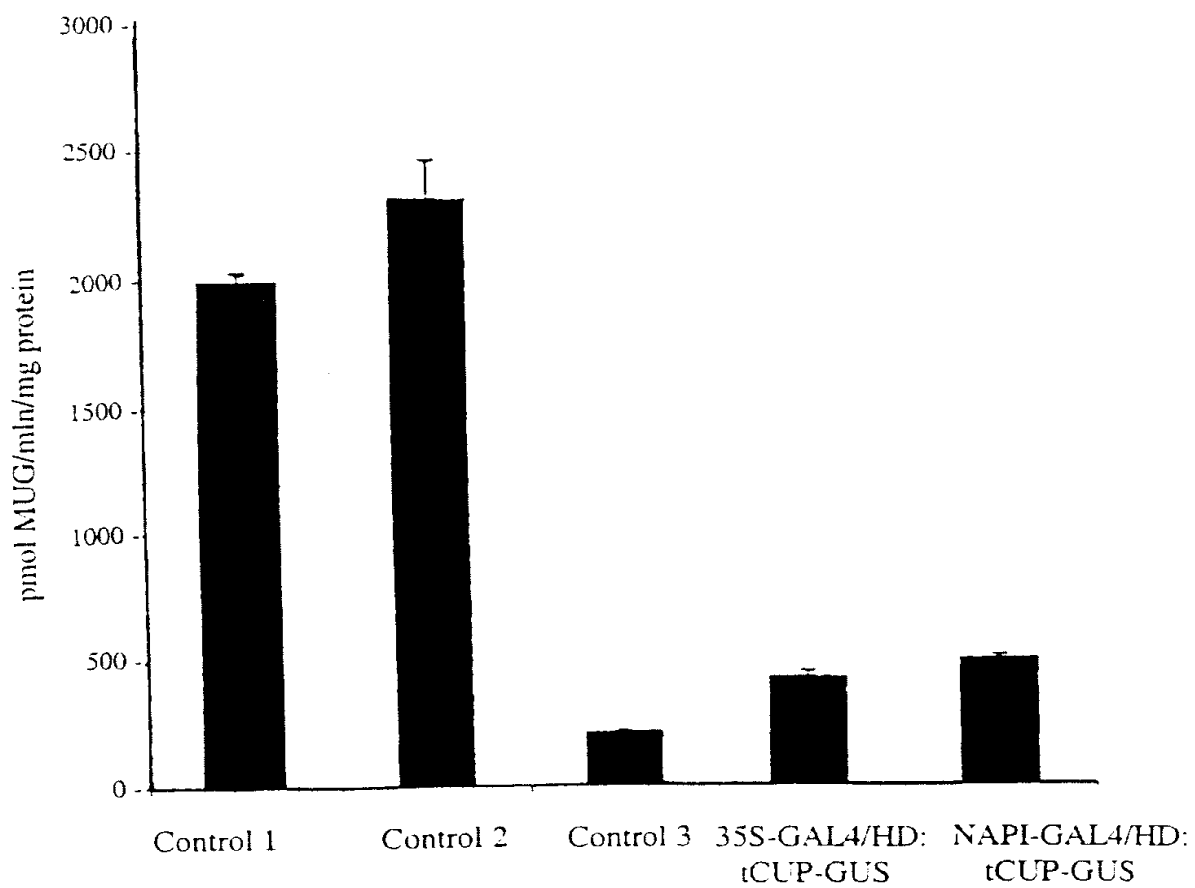
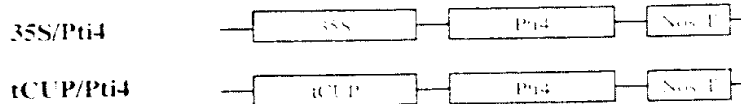


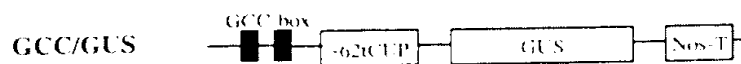
Figure 19(c)

A

Effector Plasmids



Reporter Plasmid



B

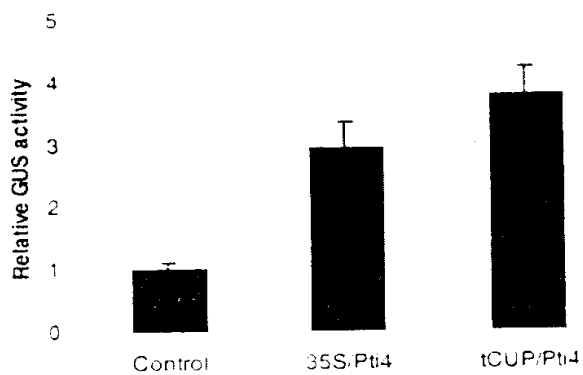


Figure 20



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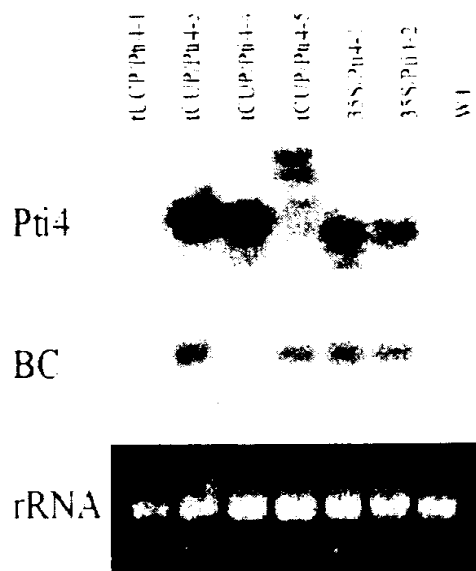


Figure 21

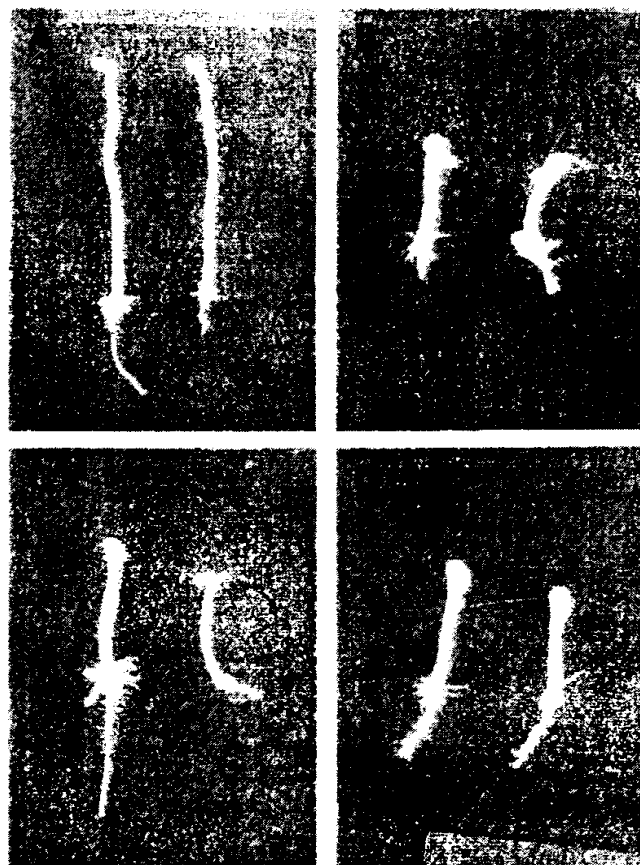
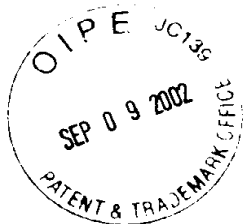


Figure 23



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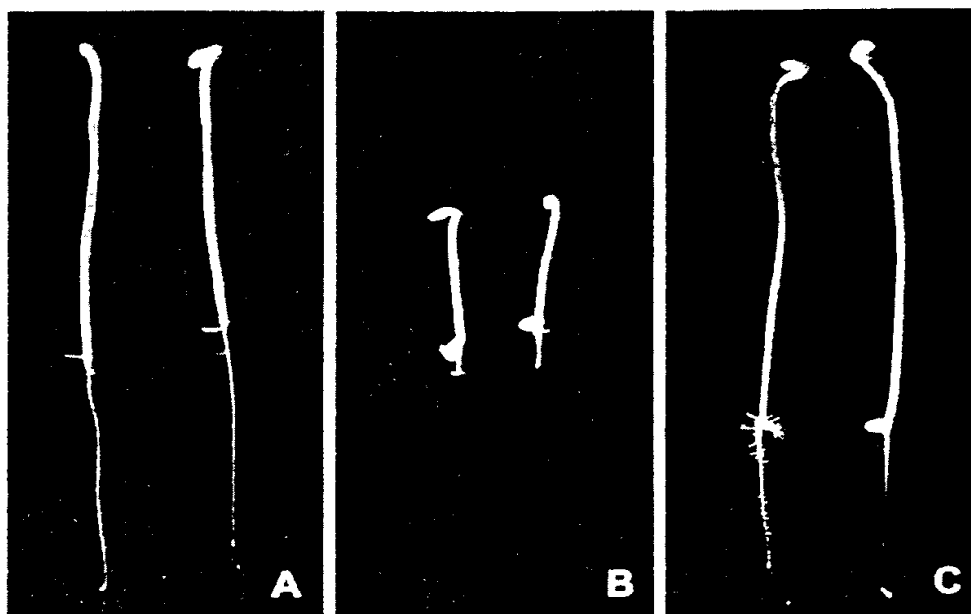


Figure 24